RETURN OF THE UNIVERSITY OF MICHIGAN GREENLAND EXPEDITION OF 1926

An article by Professor Hobbs in the *Michigan Alumnus* for October 23, 1926, contains the following material of meteorological interest:

We were favored by an exceptionally good season and throughout the more than eight weeks of our stay in Greenland, Camp Little[1] was the main base of operations, particularly those with balloons, which have been unusually successful and have set new records for Greenland. We carried out no less than 90 pilot balloon ascensions for a study of the winds in the higher levels. The path of these balloons was followed with the theodolite to average heights of 7,000 meters, many to 10,000 meters, and one to 14,000 meters, or about 8 miles. * * * Thanks to a device recently invented by the Swedish meteorologist, Dr. C. G. Rossby, the Michigan expedition was able to set a new record in exploring the upper air of Greenland. Doctor Rossby had presented the expedition with three of his deflating valves, which are so made as to let the gas out of the balloon at any desired height.

The first two ascents were made to heights of about 400 and 1,700 meters, respectively, and were entirely successful, the records being recovered intact, although one fell into the fjord. We then tried for 3,000 meters and saw equipment to the value of $150 sailing away over the mountains.[2] We waved it a solemn "good-by," but, as though by a miracle, two weeks later we found it near the top of a mountain 6 miles away beyond the fjord, and the record was perfect after having reached an extreme altitude of no less than 8,000 meters. * * *

Studies of the upper air by means of the simpler pilot balloons have never before been made over or close to the vast ice caps of Greenland or the Antarctic. A party consisting of Gould, Church, Belknap, and the director, with four Greenlanders (half-caste Eskimos) in a journey of 22 days made by umiak (large skin boat), canoe, and on foot with heavy packs, reached the inland ice 100 miles away toward the interior of Greenland. Pilot balloons were there sent up and followed with the theodolite to heights in one instance of 5,500 meters, and this both close to the margin of the ice and from its surface. * * *

On one of the days when we were on the ice cap a pulse or stroph of the anticyclone was blowing down the slope and made it next to impossible for us to keep our footing. More than once we were bowled over with our heavy packs to find ourselves piled up in one of the deep gutters on the surface. * * *

Various mountain tops were visited with reference to their occupation later as a weather station for the study of the strophs of the glacial anticyclone, with special reference to the possibility of forecasting storms on the North Atlantic and in Europe. It will be necessary, however, to await the further study of the balloon observations before deciding which of these positions is best suited for the purpose.

APPLICATION OF KÖPPEN'S CLASSIFICATION OF CLIMATES TO CALIFORNIA

A paper on "Climates of California," by R. J. Russell, of Texas Technological College, constitutes part 4 of volume 2 of the University of California Publications in Geography. This part of volume 2 is an admirably concise and thoughtful presentation of the distribution of climates in California according to Köppen's scheme, supplemented by certain further subdivisions which the author shows to be desirable in order to set apart a few areas in the State which have such unusual combinations of climatic elements that the Köppen classification would be to some extent misleading. Throughout the paper Doctor Russell has carefully checked his decisions in locating the regional boundaries by adequate reference to botanical criteria and to his own extensive acquaintance with the desert and semidesert parts of the State.

The colored map accompanying the paper would, in the reviewer's opinion, have been improved by printing the letter symbols within the areas as well as in the legend. This is, however, a minor detail regarding an otherwise excellently clear picture.—*B. M. V.*

[1] Established by the expedition on an arm of Maligiak Fjord, some 50 miles east of Holstenborg, on the west coast of Greenland.—*Ed.*

[2] Mr. Fergusson, in charge of the ascents, reports that the deflating valve could not operate in this case because water vapor, from the impure hydrogen necessarily used, condensed and froze in it.—*Ed.*

AERONAUTICS AT THE CALIFORNIA INSTITUTE OF TECHNOLOGY

The "Bulletin of the California Institute of Technology" for October, 1926, announces that the institute is adding to its major branches of instruction and research new courses in aeronautics. This has been made possible through a gift of about $300,000 from the Daniel Gugenheim fund for the promotion of aeronautics. Among the 22 technological courses offered we note a course in "Aerology and meteorology," for which the following is the statement of subjects to be treated:

Variation with altitude of the pressure, wind velocity, temperature, and humidity. General circulation of the atmosphere. Prevailing winds. World's air routes. Studies relating to clouds, fogs, thunderstorm, evaporation, and atmospheric eddies. Atmospheric electricity, visibility.

Text: Shaw, Forecasting Weather.

SEVENTY-FIFTH ANNIVERSARY OF THE VIENNA ACADEMY OF SCIENCE

The editor has received a copy of the anniversary volume issued to mark the seventy-fifth anniversary of the founding of the Zentralanstalt für Meteorologie und Geodynamik, Vienna, Austria.

Following is a list of the contributors and the titles to be found in the volume:

Vorwort, DR. FELIX M. EXNER.

P. TH. SCHWARZ, Einfluss der Thermometeraufstellung auf die Beobachtungsresultate der Temperatur in Kremsmünster.

FICKER, H. v., Richtung von Wind und Wolken auf Teneriffa.

WEGENER, A., Beobachtungen der Dämmerungsbögen und des Zodiakallichtes in Grönland.

EXNER, F. M., Beziehungen von Luftdruckanomalien auf der Erde zueinander.

SCHORN, J., Geschichte und Ergebnisse der Erdbebenkunde Tirols.

DEFANT, A., Primäre und sekundäre—freie und erzwungene Druckwellen in der Atmosphäre.

SCHEDLER, A., Luftdruckwellen und Korrelationen über dem Nordatlantischen Ozean.

ROSCHKOTT, A., Studie über Luftdruckschwankungen im Gebiete des Azorenhochs.

KOFLER, M., Eine einfache Definition der Unruhe einer Naturerscheinung.

PIRCHER, J., Apparat zur Registrierung der Böigkeit des Windes, angeschlossen an Dines' Anemographen.

CONRAD, V., Schwankungen der seismischen Aktivität in verscheidenen Faltungsgebieten.

WAGNER, A., Windregistrierungen auf dem 150 m. hohen Funkturm in Deutsch Altenburg.

SCHMIDT, W., Modellversuche zur Wirkung der Erddrehung auf Flussläufe.